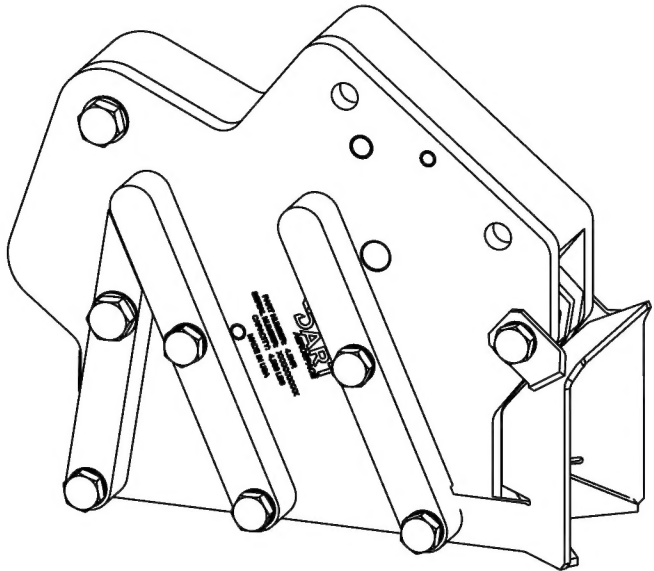


This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			4.5NR-3	2	LOAD STOP STIFFENER			2
			4.5NR-4	2	SIDE STIFFENER			2
			4.5NR-6	1	SIDE PLATE COVER			2
			4.5NR-7	2	LIFTER BUSHING			3
			4.5NR-8	1	LIFTER			3
			4.5NR-9	2	LIFTER/LOAD STOP SPRING			2
			4.5NR-10	1	LOCK ROLLER PIN			3
			4.5NR-12	1	LATCH			3
			4.5NR-13	1	LOCK BEARING SCREW			3
			4.5NR-14	1	LOCK ROLLER			3
		B/O	4.5NR-15	1	LOCK BEARING	STEEL	{McGILL #CYR 3/4 S}	3
			4.5NR-16	1	LOCK			3
			4.5NR-17	1	LOCK BUSHING			3
			4.5NR-18	1	LOAD STOP			2
			4.5NR-20	2	LOAD STOP BUSHING			2
		B/O	4.5NR-21	3	SPRING ANCHOR	S.S.	Ø3/16 X 1 (MCMaster-CARR #97386A251)	2
			4.5NR-23	1	LOAD STOP BACK BUMPER			2
			4.5NR-24	1	LOAD STOP FRONT BUMPER			2
			4.5NR-25	1	SIDE PLATE SOLENOID			2
			4.5NR-27	1	SOLENOID			2
			4.5NR-28	1	SOLENOID COVER			2
		B/O	4.5NR-30	2	SOLENOID COVER SCREW	S.S.	1/4-28 X 1/2 (MCMaster-CARR #92196A317)	2
			4.5NR-32	1	MANUAL RELEASE KNOB			2
			4.5NR-33	1	CAGE SPACER			2
			4.5NR-34	2	LOAD RAIL			2
			4.5NR-35	2	LATCH BUSHING			3
			4.5NR-36	2	LATCH SPRING			2
			4.5NR-38	1	FUNNEL SUB-ASSEMBLY			2
		B/O	4.5NR-39	1	KEEPER SPRING	S.S.	Ø.069 X 5 DENDOFF	3
			4.5NR-40	1	KEEPER			3
			4.5NR-41	1	LATCH ROLLER			3
			4.5NR-43	1	LEVER			3
		B/O	4.5NR-44	1	LATCH PIN	STEEL	Ø5/16 X 1-1/4 (MCMaster-CARR #98381A585)	3
			4.5NR-45	1	LATCH ROLLER PIN			3
			4.5NR-46	1	LEVER BUSHING			3
			4.5NR-47	1	FRONT STIFFENER			2
		B/O	4.5NR-50	1	LIFTER PIN	STEEL	Ø1/4 X 1-1/4 (MCMaster-CARR #98381A544)	3
			4.5NR-52	1	KEEPER BUSHING			3
			20NR-56	3	SPRING ANCHOR			2,3
		B/O	C10-7	2	LOCATING PIN	STEEL	Ø1/4 X 1-1/4 (MCMaster-CARR #98381A544)	2
		B/O	C45-3-2-1	2	SNAP RING	STEEL	Ø3/8 (KAMAN 1400-0037)	3
		B/O	C45-3-4-1	2	RETAINING RING	BERYLLIUM COPPER	3/16 SHAFT (MCMaster-CARR #98410A110)	3
		B/O	C45-3-5	2	SPACER	TEFLON	(MCMaster-CARR #95606A180)	3
		B/O	C45-10-1	1	SPRING PIN	S.S.	1/4 X 1.0 (MCMaster-CARR #92373A183)	3
		B/O	C45-13-2	2	SPACER	NYLON	(MCMaster-CARR #95606A210)	3
		B/O	188-FPSS-1032-1/4	2	SET SCREW	S.S.	10-32 X 1/4 (MCMaster-CARR #94355A330)	2
		B/O	AN6-13A	6	RAIL BOLT	STEEL	3/8-24 X 1-29/64	2
		B/O	AN6-14A	1	FRONT BOLT	STEEL	3/8-24 X 1-1/2	2
		B/O	AN6-24A	1	KEEPER BOLT	STEEL	3/8-24 X 2-1/2	2
		B/O	AN6-40A	1	BOLT	STEEL	3/8-24 X 4	2
		B/O	AN7-24A	1	LOCK BOLT	STEEL	7/16-20 X 2.59	2
		B/O	AN7-40A	1	THROUGH BOLT	STEEL	7/16-20 X 4	2
		B/O	AN960-10L	2	SOLENOID WASHER	STEEL	#10	2
		B/O	AN960-616	9	AN-6 WASHER	STEEL	Ø3/8	2
		B/O	AN960-616L	2	KEEPER WASHER, LOW PROFILE	STEEL	Ø3/8	2
		B/O	AN960-716	4	AN-7 WASHER	STEEL	Ø7/16	2
		B/O	MS21044N6	1	LOCK NUT	STEEL	3/8-24	2
		B/O	MS21044N7	2	LOCK NUT	STEEL	7/16-20	2
		B/O	MS21083N3	2	SELF-LOCKING NUT	STEEL	#10-32	2
		B/O	MS21083N6	1	HEX NUT	STEEL	3/8-24	2
		B/O	CORD GRIP	1	CORD GRIP	BRASS	M8-x 1.25 (MCMaster-CARR #8183K6)	2
		B/O	11-04473	1	WIRE	16 GA SHIELDED WIRE	14 IN. (AIRCRAFT SPRUCE #11-04473)	3
		B/O	EL-PLUG-M	1	MALE PLUG	PE HIGH DENSITY	(MCMaster-CARR #7216K5)	3
		B/O	32446	2	22-16 AWG KNIFE CONNECTOR		(ALLIED ELECTRONICS #32446)	3
		B/O		1	HEAT SHRINK TUBE	RUBBER	(MCMaster-CARR #2595K22)	N/S

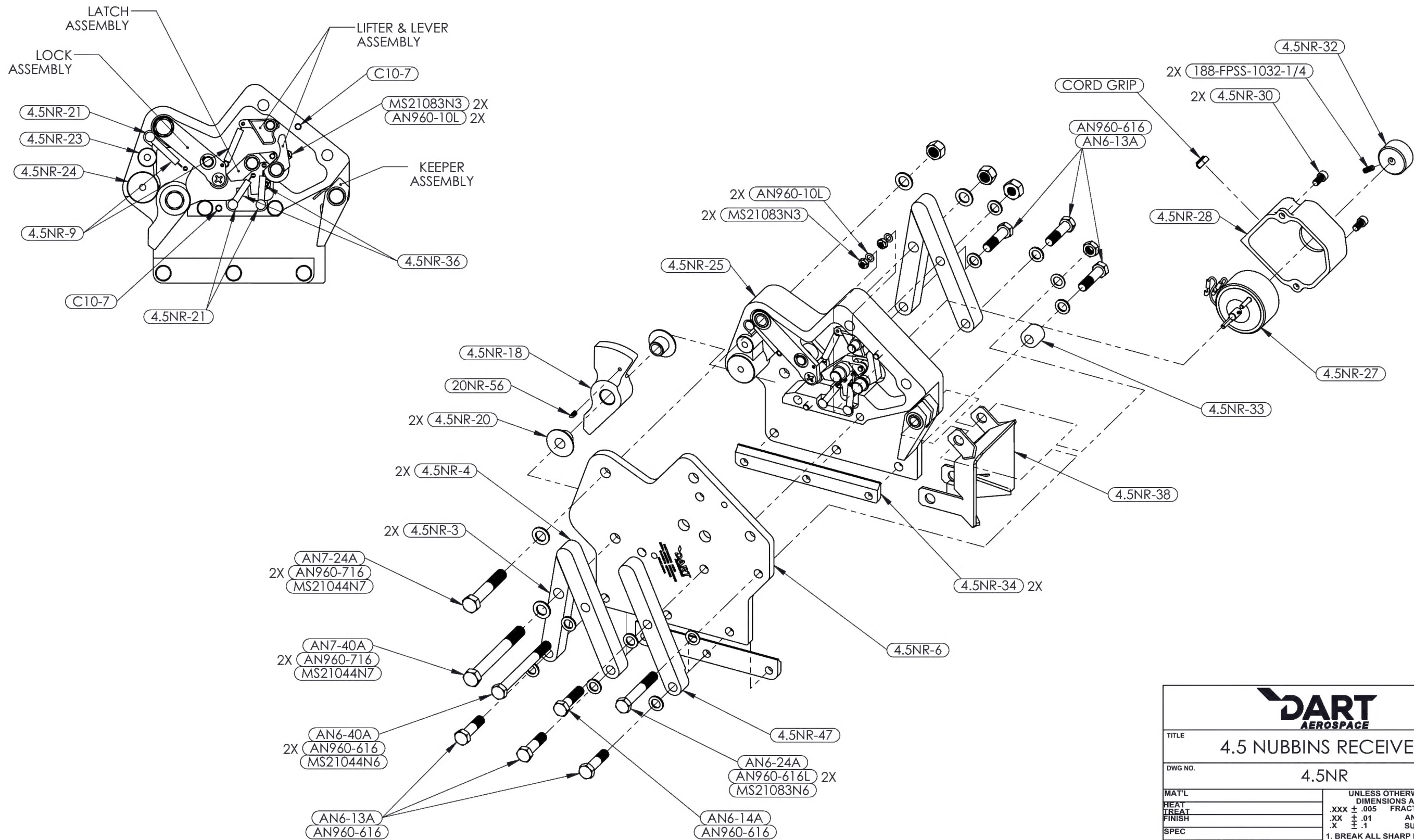
REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		REMOVED 2 CONNECTORS #32446, ADDED TO DWG 4.5NR-27	10/29/2013	JAG	
1A	14-0080	CH'D B/O INFO 4.5NR-5 WAS 3/8-24-1.33 AN6-12A IS 3/8-24 X 1-29/64. CH'D 4.5NR-13 FROM A B/O TO A MODIFIED B/O. CH'D SHEETS FROM RB TO DART. 4.5NR-19 CH'D PART NUMBER TO 20NR-56.	7/21/2014	DJN	RW
2	15-0076	UPDATED TO NEW DRAFTING STANDARDS. UPDATED P/N'S TO MIL SPEC NUMBERS. 4.5NR-30 CH'D B/O INFO WAS 1/4-28 X 17/32 MS27039-4-08 IS 1/4-28 X 1/2 #92196A317. ADDED 4.5NR-38, MS21083N6 .	4/13/2015	DPD	JAG
3	15-0178	4.5NR-31 CH'D QTY WAS 1 IS 2. AN960-716 CH'D QTY WAS 3 IS 4. CH'D P/N WAS MS21044N3 IS MS21083N3 . AN960-616L ADDED TO BOM QTY 2.	7/21/2015	DPD	JAG
4	15-0359	4.5NR-29 REPLACED W/ CORD GRIP . 4.5NR-31 REPLACED W/ 188-FPSS-1032-1/4 . AN365-624A REPLACED W/ MS21044N6 . AN365-720A REPLACED W/ MS21044N7 . ADDED ENGRAVING DETAIL AND NOTE.	11/13/2015	DPD	JAG
5	16-0070	UPDATED TO NEW STANDARDS. C10-7 ADDED TO BOM QTY 2. M27500-16TG2T14 REPLACED W/ 11-04473 .	7/8/2016	DPD	SM



<div><div><div></div><div>DART</div><div>AEROSPACE</div></div></div>			
TITLE			
4.5 NUBBINS RECEIVER			
DWG NO.			REV
4.5NR			5
MAT'L		UNLESS OTHERWISE SPECIFIED	
HEAT TREAT		DIMENSIONS ARE IN INCHES	
FINISH		.XXX ± .005 FRACTIONS ± 1/8	
SPEC		.XX ± .01 ANGLES ±.5°	
		.X ± .1 SURFACES = 125/	
DRAWN BY:		1. BREAK ALL SHARP EDGES	
CHECKED:		.015 x 45° OR .015R	
OPPS APPR:		2. DIMENSIONAL LIMITS APPLY	
QA APPR:		AFTER PLATING	
APPROVED:		3. INTERPRET DIM AND TOL PER	
SCALE		ASME Y14.5M-2009	
1:3		USED ON MODEL	
DATE			
12/23/1997			
		SHEET 1 OF 4	

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

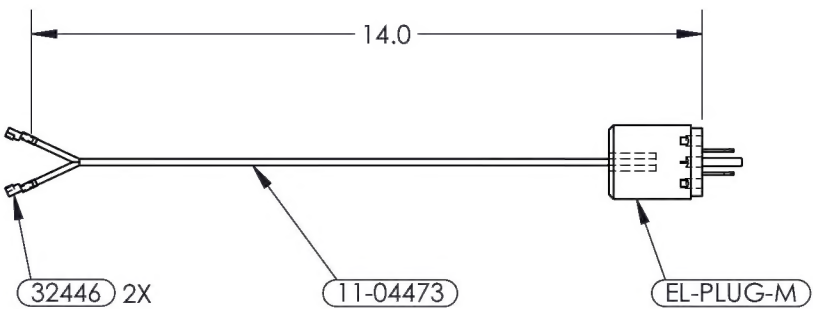
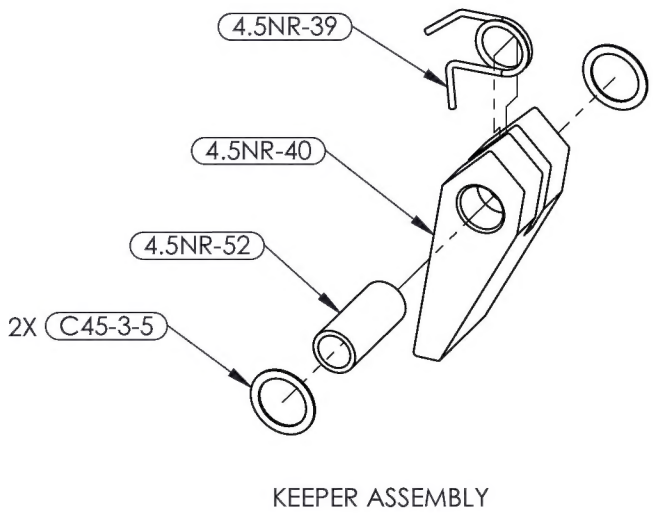
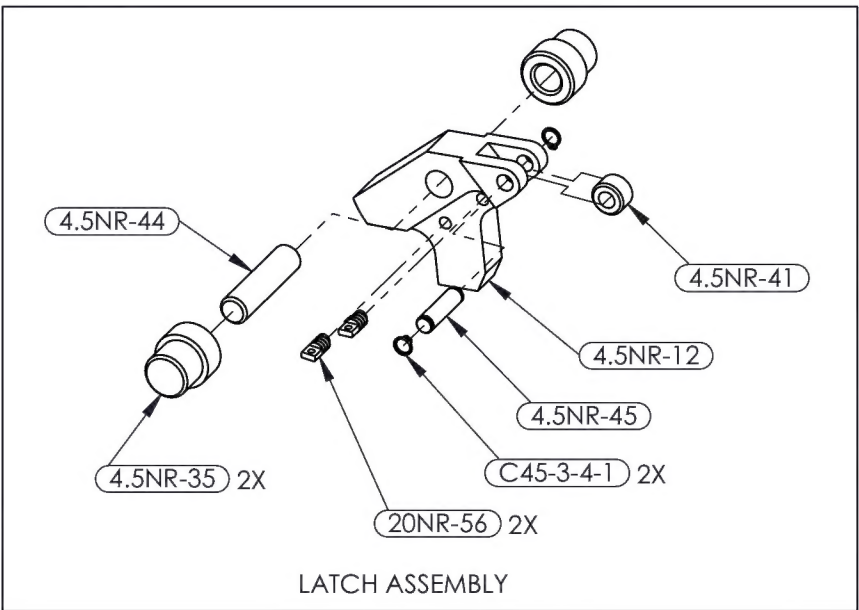
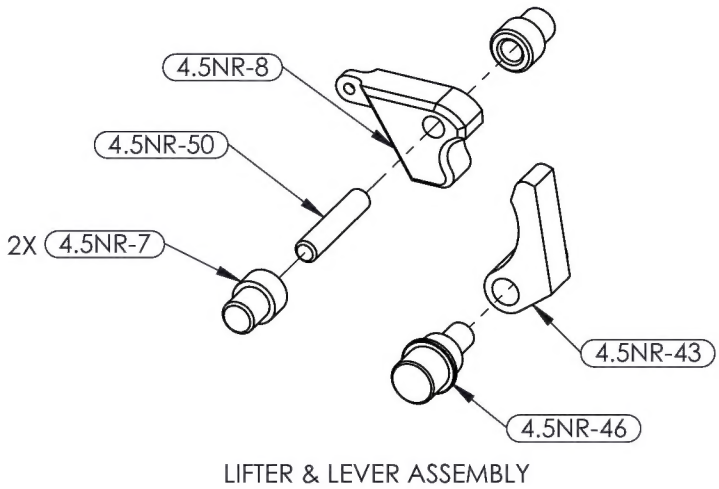
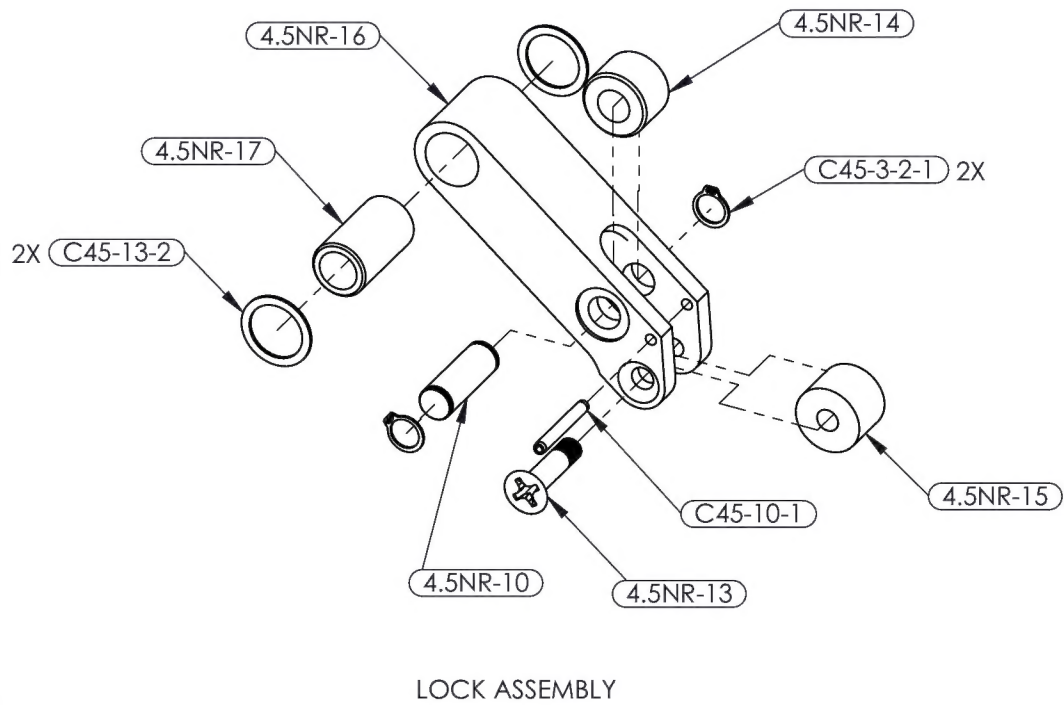
REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED



DART AEROSPACE			
TITLE 4.5 NUBBINS RECEIVER			
DWG NO. 4.5NR			REV 5
MAT'L		UNLESS OTHERWISE SPECIFIED	
HEAT TREAT		DIMENSIONS ARE IN INCHES	
FINISH		.XXX ± .005 FRACTIONS ± 1/8	
SPEC		.XX ± .01 ANGLES ± 5°	
DRAWN BY: CANAM		.X ± .1 SURFACES = 125°	
CHECKED: CLOUGH		1. BREAK ALL SHARP EDGES	
OPPS APPR: ANDERSON		.015 x 45° OR .015R	
QA APPR: LINDSAY		2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
APPROVED: MACKOVJAK		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
SCALE 1:3		USED ON MODEL	
DATE 12/23/1997		SHEET 2 OF 4	

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		REMOVED 2 CONNECTORS #32446, ADDED TO DWG 4.5NR-27	10/29/2013	JAG	

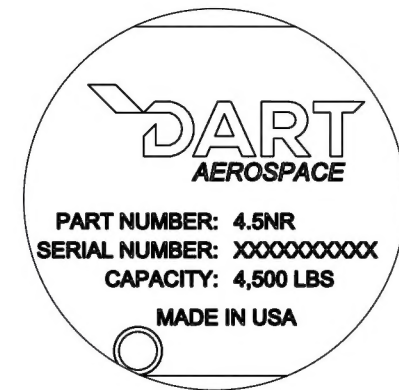
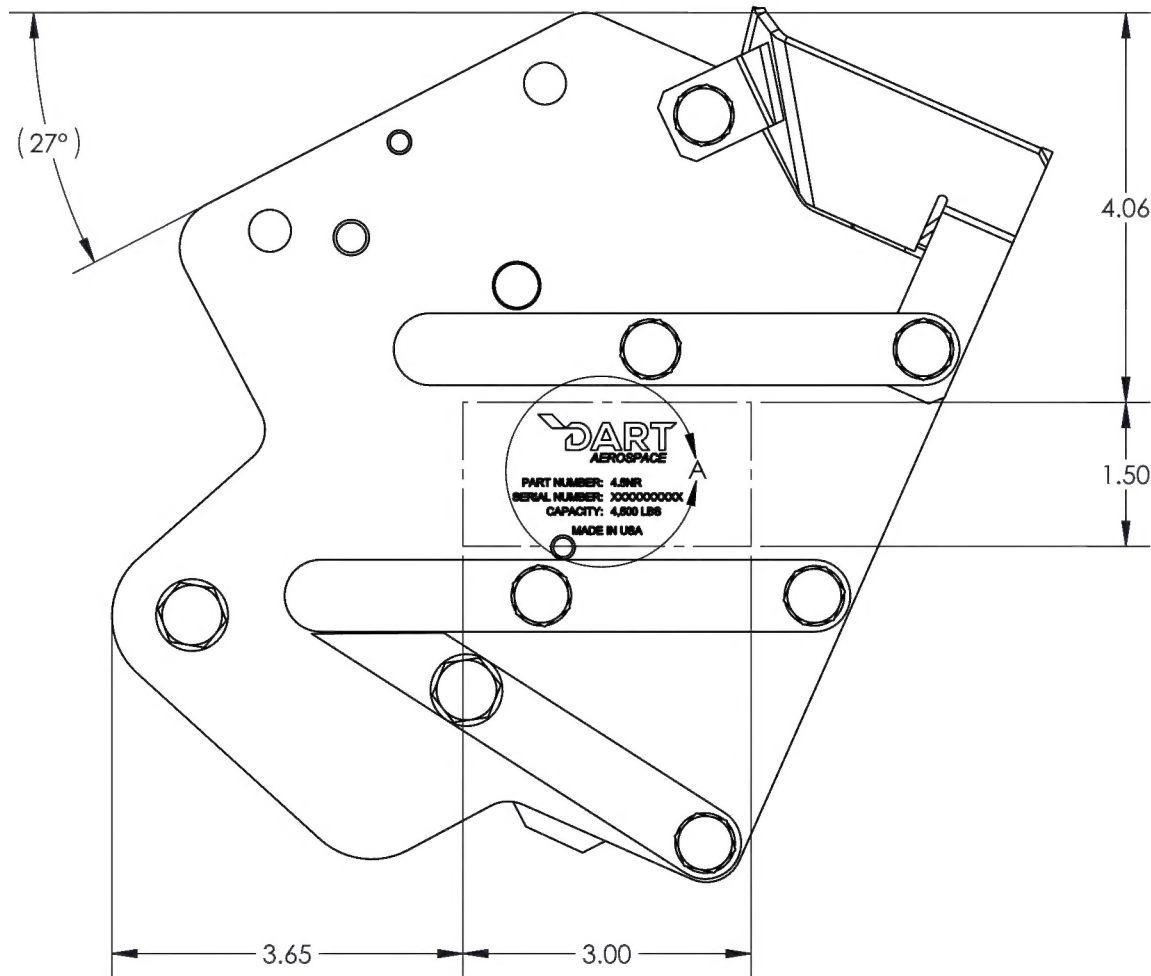


NOTE:
WHEN INSTALLING TO SOLENOID USE 2 SECTIONS
OF HEAT SHRINK TO SEAL CONNECTION.
PLUG INCLUDED LOOSE IN KIT.

DART AEROSPACE			
TITLE 4.5 NUBBINS RECEIVER			
DWG NO. 4.5NR			REV 5
MAT'L		UNLESS OTHERWISE SPECIFIED	
HEAT TREAT		DIMENSIONS ARE IN INCHES	
FINISH		.XXX ± .005 FRACTIONS ± 1/8	
SPEC		.XX ± .01 ANGLES ± 5°	
DRAWN BY: CANAM		.X ± .1 SURFACES ± 125°	
CHECKED: CLOUGH		1. BREAK ALL SHARP EDGES	
OPPS APPR: ANDERSON		.015 x 45° OR .015R	
QA APPR: LINDSAY		2. DIMENSIONAL LIMITS APPLY	
APPROVED: MACKOVJAK		AFTER PLATING	
SCALE 1:2		3. INTERPRET DIM AND TOL PER	
DATE 12/23/1997		ASME Y14.5M-2009	
SHEET 3 OF 4		USED ON MODEL	

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS						
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED	



DETAIL A
SCALE 1 : 1

NOTE:

- 1 LASER ENGRAVE DART LOGO, P/N, S/N, "MADE IN USA," WITHIN BOUNDARY.

DART AEROSPACE	
TITLE 4.5 NUBBINS RECEIVER	
DWG NO. 4.5NR	REV 5
MAT'L HEAT TREAT FINISH SPEC	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125✓	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY:	CANAM
CHECKED:	CLOUGH
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	MACKOVJAK
SCALE 1:2	DATE 12/23/1997
SHEET 4 OF 4	